

Form PTO-1449 (Modified)

Atty Docket No.

Serial No.

List of Patents and Publications

TAMK:112

197/344,258

For Applicant's Information

Applicant

Disclosure Statement

Steven McDaniel, Frank M. Raushel and
James R. Wild

(Use several sheets if necessary)

Filing Date

Group

April 27, 1989

185

Reference Designation			U. S. Patent Documents				
Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
<i>CSN</i>	AA 3,515,644	06/02/70	Kramer, et al.	195	103.5	04/10/67	
<i>CSN</i>	AB 4,781,959	11/01/88	Gottlieb, et al.	428	95	08/01/86	
<i>CSN</i>	AC 4,525,704	06/25/85	Campbell, et al.	340	632	11/09/83	
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FOREIGN PATENT DOCUMENTS

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	AL					
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	AN					
	AQ					
	AP					

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)

<i>CSN</i>	McDaniel, et al., "Detection of Organophosphorus Pesticide Detoxifying Bacterial Colonies Using UV-Photography of Parathion-Impregnated Filters," Arch. Environ. Contamin. Toxicol., Vol. 17 (1988) 189-194;					
<i>CSN</i>	Albizo, et al., "The Hydrolysis of GD and VX by Acetone Dried Preparations of Cured and Plasmid-Containing Pseudomonas diminuta," Proc. 1986 US Army Chem. Res., Devel. Eng. Center Scientific Conf. Chem. Defense Res., 18-21 Nov. 1986, 643-649;					
<i>CSN</i>	Wild et al., "Cloning, Sequencing and Characterization of opd Genes and Their Broad-Spectrum Organophosphate Hydrolases From Soil Bacteria," Proc. 1986 US Army Chem. Res., Devel. Eng. Center Scientific Conf. Chem. Defense Res., 18-21 Nov. 1986, 629-634;					
<i>CSN</i>	Munnecke et al., "Pathways of Microbial Metabolism of Parathion," Appl. Environ. Microbiol., Vol. 31 (1976) 63-69;					

Examiner

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Date Considered

16 April 1991

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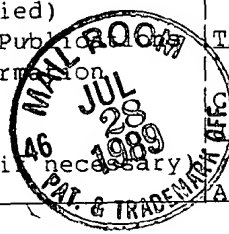
FOREIGN PATENT DOCUMENTS							
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	AL						
	AM						
	AN						
	AO						
	AP						

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)							
C281		Sethunathan et al., "A <u>Flavobacterium</u> sp. That Degrades Diazinon and Parathion," Can. J. Microbiol., Vol. 19 (1973) 873-875;					
	AV						
C284		Munnecke, "The Use of Microbial Enzymes for Pesticide Detoxification" in Microbial Degradation of Xenobiotics and Recalcitrant Compounds, Acad. Press, Inc., London (1981) 251-269;					
	AW						
C284		Serdar, et al., "Plasmid Involvement in Parathion Hydrolysis by <u>Pseudomonas diminuta</u> ," Appl. Environ. Microbiol., Vol. 44 (1982) 246-249;					
	AX						
C282		Mulbry et al., "Identification of a Plasmid-Borne Parathion Hydrolase Gene from <u>Flavobacterium</u> sp. by Southern Hybridization with <u>opd</u> from <u>Pseudomonas diminuta</u> ," Appl. Environ. Microbiol., Vol. 51 (1986) 926-930;					
	AY						
Examiner	Low			Date Considered 16 April 1991			

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	AL						
	AM						
	AN						
	AO						
	AP						

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)	
CBK	McDaniel, "Plasmid-Mediated Degradation of Organophosphate Pesticides," Ph.D. Dissertation (1985), Texas A&M University;
	AZ
C87X	Chaudhry et al., "Isolation of a Methyl Parathion-Degrading Pseudomonas sp. That Possesses DNA Homologous to the opd Gene from a Flavobacterium sp.," Appl. Environ. Microbiol., Vol. 54 (1988) 288-293;
	BA
C884	Merritt et al., "In vitro Degradation of Organophosphorus Insecticides by Pseudomonas aeruginosa Isolated from Fleece-Rot Lesions of Sheep," Austral. Vet. J., Vol. 57 (1981) 531;
	BB
C87X	Serdar et al., "Enzymatic Hydrolysis of Organophosphates: Cloning and Expression of a Parathion Hydrolase Gene from Pseudomonas dimunta," Bio/Technology, Vol. 3 (1985) 567-571;
	BC

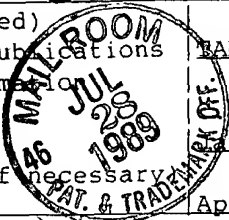
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	AL						
	AM						
	AN						
	AO						
	AP						

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)

c89c | Brown, "Phosphotriesterases of Flavobacterium sp." Soil Biol. Biochem., Vol. 12 (1980) 105-112;

BD | Chiang et al., "A Fruit Fly Bioassay with Phosphotriesterase for De-

c89c | tection of Certain Organophosphorus Insecticide Residues," Bull. Environ. Contam. Toxicol., Vol. 34 (1985) 809-814;

c89c | Bolivar et al., "Construction and Characterization of New Cloning Vehicles II. A Multipurpose Cloning System," Gene, Vol. 2 (1977)

BF | 95-113;

c89c | Messing et al., "Filamentous Coliphage M13 as a Cloning Vehicle: Insertion of a HindII Fragment of the lac Regulatory Region in M13 Replicative Form

BG | in vitro," Proc. Natl. Acad. Sci. USA, Vol. 74 (1977) 3642-3646;

Examiner low | Date Considered 16 April 1991

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	AL					
	AM					
	AN					
	AO					
	AP					

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)	
C8X	Munch-Petersen et al., "Studies on the Acid-Soluble Nucleotide Pool in the Thymine Requiring Mutants of Escherichia coli During Thymine Starvation," Biochim. Biophys. Acta., Vol. 80 (1964) 542-551;
C8X	Clewell et al., "Supercoiled Circular DNA-Protein Complex in Escherichia coli: Purification and Induced Conversion to an Opened Circular DNA Form," Proc. Natl. Acad. Sci. USA, Vol. 62 (1969) 1159-1166;
C8X	Berns et al., "Isolation of High Molecular Weight DNA from Hemophilus influenzae," J. Mol. Biol., Vol. 11 (1965) 476-490;
C8X	Casadaban et al., "In vitro Gene Fusions that Join Enzymatically Active beta-Galactosidase Segment to Amino-Terminal Fragments of Exogenous Proteins: Escherichia coli Plasmid Vectors for the Detection and Cloning of Translational Initiation Signals," J. Bacteriol., Vol. 143 (1980) 971-980;
BK	980;

Examiner low Date Considered 16 April 1991

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	AL						
	AM						
	AN						
	AO						
	AP						

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)							
C892		Hewick et al., "A Gas-Liquid Solid Phase Peptide and Protein Sequenator,"					
		J. Biol. Chem., Vol. 256 (1981) 7990-7997;					
	BL						
C582		Frantz et al., "Organization and Nucleotide Sequence Determination of a					
		Cluster Involved in 3-Chlorocatechol Degradation," Proc. Natl. Acad.					
	BM	Sci. USA, Vol. 84 (1987) 4460-4464;					
C892		Maniatis et al., Molecular Cloning: A Laboratory Manual, (1982), Cold					
		Spring Harbor Laboratory, Cold Spring Harbor, New York;					
	BN						
C892		Luckow et al., "Signals Important for High-Level Expression of Foreign					
		Genes in Autographa californica Nuclear Polyhedrosis Virus Expression					
	BO	Vectors," Virology, Vol. 167 (1988) 56-71;					

Examiner	Low	Date Considered	16 April 1989
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	AL						
	AM						
	AN						
	AO						
	AP						

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)							
CSN		Vaughan et al., "The Establishment of Two Cell Lines from the Insect <i>Spodoptera frugiperda</i> (Lepidoptera: Noctuidae)," In Vitro, Vol. 13 (1977) 213-217;					
CSN		Hink, "Established Insect Cell Line from the Cabbage Looper, <i>Trichoplusia ni</i> ," Nature, Vol. 226 (1970) 466-467;					
CSN		Smith et al., "Measurement of Protein Using Bicinchoninic Acid," Anal. Biochem., Vol. 150 (1985) 76-85;					
CSN		Laemmli, "Cleavage of Structural Proteins During the Assembly of the Head of Bacteriophage T4," Nature, Vol. 227 (1970) 680-685;					

Examiner Con Date Considered 16 April 1991

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	AL						
	AM						
	AN						
	AO						
	AP						

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)	
c89n	Wray et al., "Silver Staining of Proteins in Polyacrylamide Gels," Anal. Biochem., Vol. 118 (1981) 197-203;
BT	
c89n	Scopes et al., "The Use of <u>Folsomia fimetaria</u> and <u>Drosophila melanogaster</u> as Test Insects for the Detection of Insecticide Residues," Econ. Entomol., Vol. 60 (1967) 1539-1541;
BU	
c89n	Struck et al., "Purification of Hybrid beta-Galactosidase Protein Encoded by Φ X174 E Φ lacZ and <u>Escherichia coli</u> p λ A Φ lacZ: A General Method for Isolation of <u>lacZ</u> Fusion Polypeptides Produced in Low Amounts," J. Mol. Biol., Vol. 185 (1985) 18-25;
BV	
c89n	Southern, "Detection of Specific Sequences Among DNA Fragments Separated by Gel Electrophoresis," J. Mol. Biol., Vol. 98 (1975) 503-517;
BW	
Examiner	Low
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	AL						
	AM						
	AN						
	AO						
	AP						

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)							
e 89a			Harper et al., "Dissimilar Plasmids Isolated from <i>Pseudomonas diminuta</i> MG and a <i>Flavobacterium</i> sp. (ATCC 27551) Contain Identical <i>opd</i> Genes,"				
	BX		Appl. Environ. Microbiol., Vol. 54 (1988) 2586-2589;				
e 59a			McDaniel et al., "Cloning and Sequencing of a Plasmid-Borne Gene (<i>opd</i>) Encoding a Phosphotriesterase," J. Bact., Vol. 170 (1988) 2306-2311;				
	BY						
e 59a			Lewis et al., "Mechanism and Stereochemical Course at Phosphorus of the Reaction Catalyzed by a Bacterial Phosphotriesterase," Biochem., Vol. 27				
	BZ		(1988) 1591-1597;				
e 59a			Benson, "A Rapid Procedure for Isolation of DNA Fragments from Agarose Gels," Biotechniques, March/April (1984) 66-67;				
	CA						

Examiner *Low* Date Considered *16 April 1991*

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	AL					
	AM					
	AN					
	AO					
	AP					

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)

c82u	"M13 Cloning/Dideoxy Sequencing," (1980) Instruction Manual, Bethesda Research Laboratories;					
	CB					
c82u	Hoskin et al., "Hydrolysis of Nerve Gas, by Squid-type Diisopropylphosphorofluoridate Hydrolyzing Enzyme on Agarose Resin," Science, Vol. 215 (1982) 1255-1257;					
	CC					
c82y	Munnecke, "Properties of an Immobilized Pesticide-Hydrolyzing Enzyme," Appl. Environ. Microbiol., Vol. 33 (1977) 503-507;					
	CD					
c82c	Munnecke, "Hydrolysis of Organophosphate Insecticides by an Immobilized-Enzyme System," Biotech. Bioeng., Vol. 21 (1979) 2247-2261;					
	CE					
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	AM						
	AN						
	AO						
	AP						

OTHER ART (Including Author, Title, Date Pertinent Pages, Etc.)	
C89C	Munnecke, "Enzymatic Detoxification of Waste Organophosphate Pesticides," J. Agric. Food. Chem., Vol. 28 (1980) 105-111;
	CF
C89C	Loo et al., "Genetic Characterization of an <i>Escherichia coli</i> Mutant Deficient in Organophosphonate Biodegradation," Biochim. Biophys. Res. Comm., Vol. 148 (1987) 148-152;
C89C	Pemberton, "Genetic Engineering and Biological Detoxification of Environmental Pollutants", Residue Rev., Vol. 78 (1981) 1-11.
	CH

Examiner Low Date Considered 16 April 1991

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